

Attorney Docket No.: 15442US02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Electronically Transmitted May 6, 2010

Brian Schoner

Serial No.: 10/825,395

Filed: April 15, 2004

For: COLOR MAPPING CIRCUIT

Examiner: Quang N. Vo

Group Art Unit: 2625

Conf. No.: 8465

SUPPLEMENTAL AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This paper is filed as a response to the Office Action mailed on December 31, 2008 and following suggestions made by Examiner during a phone conference of May 3, 2010. Applicant respectfully requests entry of the following amendments and consideration of the following remarks.

LISTING OF THE CLAIMS

1. (Currently Amended) A method that maps any input color from an image to an output color, the method using a two-dimensional lookup table that contains mapping for a portion of the colors of the image and using color information associated with an input color from the image, the method comprising:

determining mapping information for table entries nearest to an input color; and

interpolating the mapping information for the nearest table entries to obtain color information for an output color corresponding to the input color with a processor, wherein interpolating said mapping information for the nearest table entries comprises:

determining mapping information of a first table entry corresponding to a color represented by the lookup table and closest to the input color;

determining mapping information of a second table entry a table entry away from the first table entry in a first direction in the lookup table;

determining mapping information of a third table entry a table entry away from the first table entry in a second direction in the lookup table;

determining mapping information of a fourth table entry a table entry away from the third table entry in a first direction in the lookup table; and

wherein the input color is located between the nearest table entries.

2. (Cancelled)

3. (Original) The method according to claim 1 wherein the mapping information of a table entry comprises color information associated with the table entry and a mapping condition associated with the table entry.

4. (Previously Presented) The method according to claim 3 wherein the mapping condition indicates whether the color information associated with the table entry is to be used when the mapping condition is asserted.

5. (Previously Presented) The method according to claim 4 wherein the mapping condition indicates whether the color information of the input color is to be used when the mapping condition is not asserted.

6. (Previously Presented) The method according to claim 5 wherein the color information of the input color is output without performing any mapping when the mapping condition is not asserted.

7. (Original) The method according to claim 6 wherein the brightness of the input color is mapped to an output brightness using brightness information of the table entries when the color information of the input color is output without performing any mapping.

8. (Currently Amended) The method according to claim 1 ~~2~~ wherein the four nearest table entries are used to map the color of the input color.

9. (Currently Amended) The method according to claim 1 ~~2~~ wherein two or one nearest table entries are used to map the color of the input color when the input color is near an edge of the look up table.

10. (Currently Amended) A system that maps any input color from an image to an output color, the system comprising:

a two-dimensional lookup table that contains mapping for a portion of the colors of the image; and

at least one processor capable of determining mapping information for table entries nearest to an input color, the at least one processor capable of interpolating the mapping

information for the nearest table entries to obtain color information for an output color corresponding to the input color, wherein determining mapping information for the nearest table entries comprises:

determining mapping information of a first table entry corresponding to a color represented by the lookup table and closest to the input color;

determining mapping information of a second table entry a table entry away from the first table entry in a first direction in the lookup table;

determining mapping information of a third table entry a table entry away from the first table entry in a second direction in the lookup table;

determining mapping information of a fourth table entry a table entry away from the third table entry in a first direction in the lookup table; and

wherein the input color is located between the nearest table entries.

11. (Cancelled)

12. (Original) The system according to claim 10 wherein the mapping information of a table entry comprises color information associated with the table entry and a mapping condition associated with the table entry.

13. (Original) The system according to claim 12 wherein the mapping condition indicates the color information associated with the table entry is to be used when the mapping condition is asserted.

14. (Original) The system according to claim 13 wherein the mapping condition indicates the color information of the input color is to be used when the mapping condition is not asserted.

15. (Original) The system according to claim 14 wherein the color information of the input color is output without performing any mapping when the mapping condition is not asserted for all the nearest table entries.

16. (Original) The system according to claim 15 wherein the brightness of the input color is mapped to an output brightness when the color information of the input color is output without performing any mapping.

17. (Currently Amended) The system according to claim 10 ~~11~~ wherein the four nearest table entries are used to map the color of the input color.

18. (Original) The system according to claim 10 ~~11~~ wherein two or one nearest table entries are used to map the color of the input color when the input color is near an edge of the look up table.

19. (Currently Amended) A non-transitory computer-readable medium having stored thereon, a computer program having at least one code section that maps any input color from an image to an output color using a two-dimensional lookup table that contains mapping for a portion of the colors of the image and using color information associated with an input color from the image, the at least one code section being executable by a computer for causing the computer to perform steps comprising:

determining mapping information for table entries nearest to an input color; and

interpolating the mapping information for the nearest table entries to obtain color information for an output color corresponding to the input color; and

wherein the code for determining mapping information for the nearest table entries comprises:

code for determining mapping information of a first table entry corresponding to a color represented by the lookup table and closest to the input color;

code for determining mapping information of a second table entry a table entry away from the first table entry in a first direction in the lookup table;

code for determining mapping information of a third table entry a table entry away from the first table entry in a second direction in the lookup table;

code for determining mapping information of a fourth table entry a table entry away from the third table entry in a first direction in the lookup table; and

wherein the input color is located between the nearest table entries.

20. (Cancelled)

21. (Currently Amended) The non-transitory computer-readable medium according to claim 19 wherein the mapping information of a table entry comprises color information associated with the table entry and a mapping condition associated with the table entry.

22. (Currently Amended) The non-transitory computer-readable medium according to claim 21 wherein the mapping condition indicates the color information associated with the table entry is to be used when the mapping condition is asserted.

23. (Currently Amended) The non-transitory computer-readable medium according to claim 22 wherein the mapping condition indicates the color information of the input color is to be used when the mapping condition is not asserted.

24. (Currently Amended) The non-transitory computer-readable medium according to claim 23 wherein the color information of the input color is output without performing any mapping when the mapping condition is not asserted for all the nearest table entries.

25. (Currently Amended) The non-transitory computer-readable medium according to claim 24 wherein the brightness of the input color is mapped to an output brightness using brightness information of the table entries when the color information of the input color is output without performing any mapping.

26. (Currently Amended) The non-transitory computer-readable medium according to claim ~~19~~ ~~20~~ wherein the four nearest table entries are used to map the color of the input color.

27. (Currently Amended) The non-transitory computer-readable medium according to claim ~~19~~ ~~20~~ wherein two or one nearest table entries are used to map the color of the input color when the input color is near an edge of the look up table.

28-35. (Cancelled).

REMARKS

Claims 1, 3-10, 12-19, and 21-27 are presently pending. Claims 2, 11, and 20 are cancelled without prejudice. Claims 28-35 are cancelled, following restriction.

Assignee appreciates the courtesies extended by Examiner during the phone conference of May 4, 2010. During the phone conference, Examiner indicated that the application would be in a condition for allowance if (1) claims 1, 10, and 19 were amended to incorporate the subject matter of claims 2, 11, and 20, (2) claims 1 and 3-9 were tied to a statutory category of patentable invention; and (3) if claims 19 and 21-27 were amended to set forth that the computer readable medium was “non-transitory”.

Accordingly, with this amendment, Assignee has done the foregoing and accordingly requests that Examiner pass this case to issuance.

CONCLUSION

Based on at least the foregoing, the Applicant believes that Claims 1-27 are in condition for allowance. A Notice of Allowance is courteously solicited. Should anything remain in order to place the present Application in condition for allowance, or should the Examiner disagree or have any question regarding this submission, the Examiner is kindly invited to contact the undersigned.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Dated: May 6, 2010

Respectfully submitted,

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